

### **Abstract of the Disclosure**

A data monitoring system in communication network has the global position system (GPS) receiver, a packet data collecting device and a mobile station-packet data serving node monitoring system (MPMS). The GPS receiver provides time information which is received from the GPS satellites. The packet data collecting device collects the communication protocol and communication environment information between a base station and a packet data serving node (PDSN), together with the time information provided by the GPS receiver. The MPMS receives wireless communication environment, data communication environment and mobile communication protocol of the mobile station from the mobile station together with the GPS time information, and receives packet data communication environment and data communication protocol of the mobile station from the packet data collecting device together with the time information, and monitors and analyzes on a single time axis. Accordingly, wireless communication environment and data environment between mobile communication network and data communication network, can be monitored and analyzed on a single time axis.